

US Daily: The Effect of the Biden Vaccine Mandate on Vaccination and Employment (Briggs/Struyven/Bhushan)

- Last week, President Biden announced vaccine requirements for 100mn workers, with mandates for all federal employees and most healthcare workers, and a vaccine or testing requirement for all workers at large private firms with 100+ employees.
- We estimate that the requirements will apply to about 25mn currently unvaccinated individuals, and boost the number of vaccinated individuals by 12mn (or 3.6% of the total population) through March next year, based on surveys and France's experience with vaccine requirements. We now expect 82% of the total population (and 90% of adults) to be vaccinated with a first dose by mid-2022.
- We see some downside employment risk in the near term, as 7mn affected workers report that they will definitely not get the vaccine, and vaccine mandates imposed by health care providers earlier this summer caused some workers to leave their jobs. The mandate's testing option should dampen negative employment effects, however, and many workers that do decide to quit should be able to find jobs at smaller firms not subject to the mandate.
- The medium-run net employment impact is likely positive since higher full vaccination rates will reduce virus spread, which should boost labor demand in high-contact services and labor force participation among some of the 3mn people who currently aren't working due to virus-spread concerns.

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The Effect of the Biden Vaccine Mandate on Vaccination and Employment

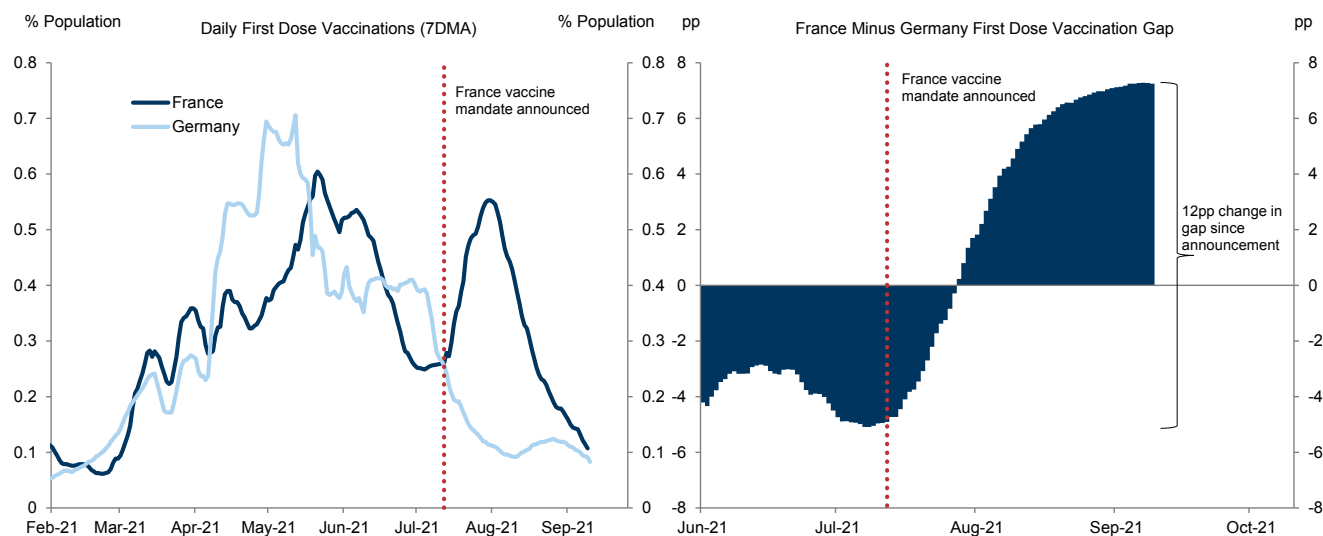
As part of his COVID-19 action plan, President Biden has announced vaccine requirements for three groups of workers, affecting around 100mn workers. First, the Department of Labor's (DOL) Occupational Safety and Health Administration (OSHA) will require all employers with 100+ employees to ensure their 80mn workforce is fully vaccinated or require unvaccinated workers to test negative before coming to work.¹ Second, the Center for Medicare & Medicaid Services (CMS) will require vaccinations for over 17mn health care workers who participate in Medicare and Medicaid. Third, a new executive order requires vaccinations for all federal executive branch workers and contractors. Federal workers have 75 days to comply with the vaccine mandate, and although the DOL rule has not yet been issued, we expect private businesses will be given a similar time period to comply, suggesting the rule could become binding in late-2021 or early-2022. Although the vaccine mandate will likely be challenged in court, the administration appears to believe it falls within OSHA's authority, even if enforcement proves challenging. How will these requirements affect the vaccination rate and the labor market?

We first estimate that the requirements will apply to about 25mn currently unvaccinated working individuals by combining self-reported vaccination rates for workers from the Census Household Pulse Survey, actual working-age vaccination rates from the CDC, and employment shares at large private firms, the healthcare sector, and the federal government.

We next estimate the impact of these requirements on vaccination using two approaches. The first approach analyzes France's COVID immunity pass that requires proof of vaccination, immunity, or a negative test to get into restaurants, bars, hospitals, and public transportation or to work at a public venue. Although France's immunity pass is mostly tied to spending rather than to work, it imposes similar vaccine/testing requirements to engage in normal economic life. The introduction of the vaccine passport in early July led to a sharp re-acceleration in the pace of first dose vaccinations in France (Exhibit 1, left panel), and a 12pp increase in the first dose vaccination rate relative to Germany (right panel).² Given that the US vaccine requirements apply to a smaller share of the population and the higher US pre-mandate vaccination rate and assuming a similar behavioral impact, our first approach implies a roughly 4pp boost from Biden's vaccine requirements through March next year.

¹ OSHA will issue an Emergency Temporary Standard (ETS) to implement this requirement.

² We assume that France's vaccination pace would have followed the German pace in the absence of the requirements.

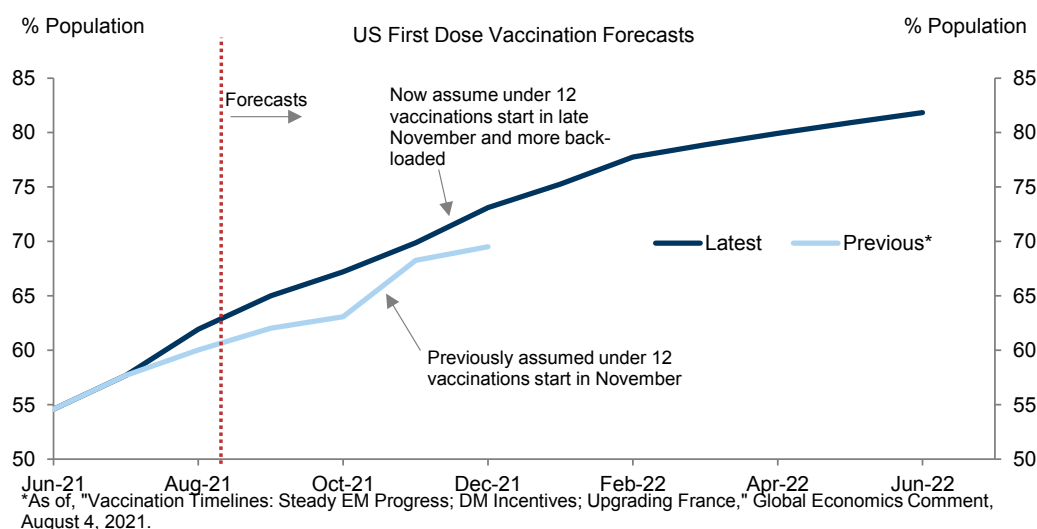
Exhibit 1: France's Vaccine Requirements Boosted the Share of the Population Vaccinated by Around 12pp

Source: Our World in Data, Goldman Sachs Global Investment Research

The second approach combines data from Census Household Pulse Survey on the shares of working individuals that are unvaccinated and “will probably not get it,” that “will definitely not get it,” or that are unvaccinated for other reasons, with an adjustment for individuals that misreport their vaccination status. Coupled with assumptions on the mandate-driven increase in the vaccination for each of these three groups, this approach implies that the requirements will boost the vaccination rate by just over 3pp by March next year. Averaging both approaches, we estimate that the new requirements will boost the number of vaccinated individuals by 12mn, or 3.6% of the total population.

Incorporating these estimates, the recent somewhat faster-than-expected vaccination pace, and assuming that vaccinations for children ages 5-11 are approved in November, we now expect 82% of the total population (and 90% of adults) to be vaccinated with a first dose by mid-2022 ([Exhibit 2](#)).

Exhibit 2: We Have Upgraded our US Vaccination Timeline and Now Expect 82% of the Population to be Vaccinated by Mid-2022



Source: Goldman Sachs Global Investment Research

We see some downside risk to employment in the near-term from the vaccine mandate. According to Census Pulse survey responses, roughly 7mn workers subject to Biden's mandate state that they will definitely not get the vaccine, and other surveys find that 40-45% of unvaccinated individuals would choose to quit or be fired instead of being vaccinated.³

Of course, hypothetical survey responses likely overstate the negative employment effects, since many workers are likely to opt to be tested weekly and some might obtain an exemption, and not all individuals that say they would quit will actually do so. To help gauge the employment impact of vaccine mandates, [Exhibit 3](#) presents data from news reports on health care employer vaccine mandates and calculates the share of workers who were fired, quit, or resigned after the mandate was introduced.

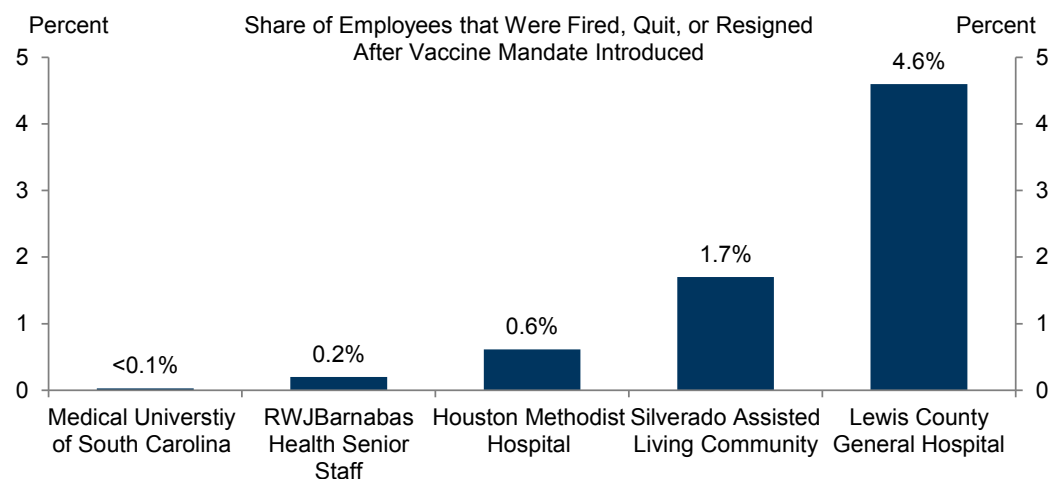
In the median example, 0.6% of healthcare workers left their jobs following employer vaccine mandates, although there was significant variation across experiences. On the low end, only 5 out of 17,000 workers at the Medical University of South Carolina in Charleston were fired for not complying by the end of June, likely because exemptions were given generously to 2,000-3,000 workers. On the high end, 4.6% of workers at Lewis County General Hospital—a rural hospital in upstate New York—resigned in protest to a vaccination mandate in September, leading to a temporary shutdown of the maternity ward.

One major caveat to these case studies is that none of the employers offered a testing option, which should significantly dampen any negative employment effects, provided that employers make tests reasonably convenient. However, these examples do

³ 42% of Washington Post/ABC survey respondents, 44% of Qualtrics survey respondents, and 45% of San Diego police officers report they would quit rather than get vaccinated if their employer imposed a vaccine mandate.

suggest there may be some employment reallocation this fall as vaccine-resisters search for jobs at smaller companies not subject to the mandate. The good news for the labor outlook is that labor demand is at a record high level and job openings have increased the most at small establishments, so many workers that do decide to quit their jobs should be able to find jobs at smaller firms relatively easily.

Exhibit 3: A Median of 0.6% of Healthcare Workers Quit After Vaccine Mandates Were Introduced, Although No Testing Alternatives Were Offered in These Case Studies

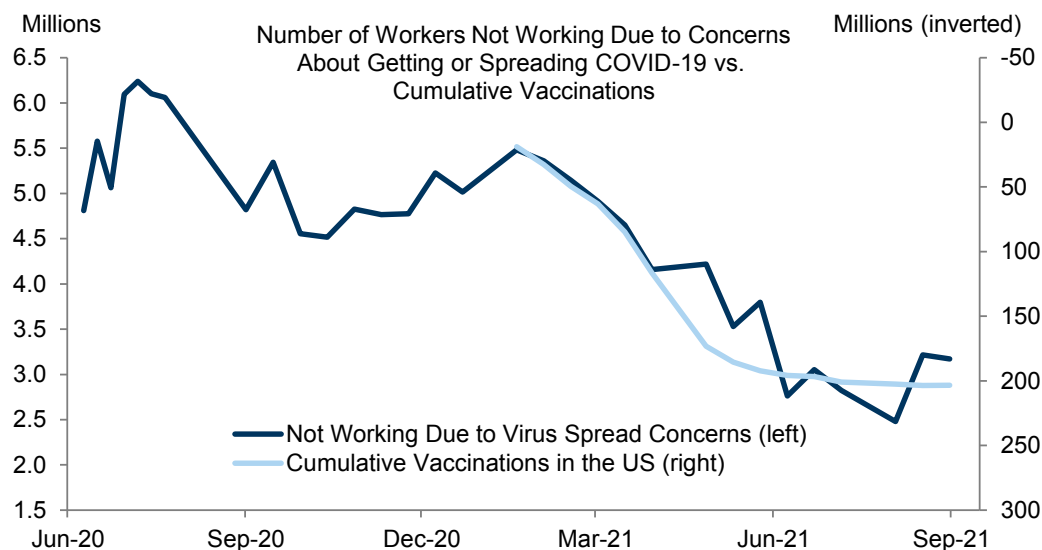


Source: Press Reports, data compiled by Goldman Sachs Global Investment Research

In contrast, the mandate's medium-run employment effects are likely positive for two reasons. First, a higher share of vaccinated individuals should help lower virus spread—and therefore lower the risk of a virus-drag on job growth like we saw in [August](#)—and boost labor demand in high-contact services that have been [slow to recover](#).

Second, concerns regarding health risk have been a significant contributor to the lackluster recovery in labor force participation this far, and increased vaccination will likely encourage labor force entry. As shown in [Exhibit 4](#), over 3mn respondents to the Census Household Pulse Survey currently indicate that concerns about getting or spreading COVID-19 are their main reason for not working, and the decline in these concerns this past spring tracked closely with cumulative vaccinations (inverted). We therefore anticipate that an increase in vaccination and almost full vaccination at workplaces should encourage many of the 5mn workers that have left the labor force since the start of the pandemic to return.

Exhibit 4: Increased Vaccination Is Associated With a Decline in the Number of Workers Not Working Due to Concerns About Getting or Spreading COVID



Source: Census Bureau, Goldman Sachs Global Investment Research

There is still a significant amount of uncertainty regarding the mandate's implementation—including when and how strictly it will be enforced, how many employers will provide convenient testing options, and how difficult it will be for workers to obtain exemptions—that will determine its impact on employment. We are therefore not adjusting our employment forecast, but we see some downside risk to employment at end-2021 and upside risk by end-2022 as a result of the mandate.

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Disclosure Appendix

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